SEQUENCE LISTING

<110> YE, Jane et al.

<120> ISOLATED HUMAN KINASE PROTEINS, NUCLEIC
ACID MOLECULES ENCODING HUMAN KINASE PROTEINS, AND USES
THEREOF

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Cys Arg Leu Leu Lys His Pro Asn Ile Val Arg Leu His Asp Ser Ile
65                  70                  75                  80
Ser Glu Glu Gly Phe His Tyr Leu Val Phe Asp Leu Val Thr Gly Gly
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atagcttcat atggctgctc cagcccccact tcttagcatt cttactcctc ttctggggct 62400
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21

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aatgtcagca tctatagaca atagactatt aaaaaatcac cttttaaaca agaaacggaa 62460
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ggtactttg agaataaaac ttcctcatgc ctgtaatccc agtactttgg gaggccgagg 62760
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<210> 4
<211> 556
<212> PRT
<213> Homo sapiens

<400> 4

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Phe Glu Glu Leu Gly Lys Gly Ala Phe Ser Val Val Arg Arg Cys Val
            20                  25                  30
Lys Lys Thr Ser Thr Gln Glu Tyr Ala Ala Lys Ile Ile Asn Thr Lys
         35                  40                  45
Lys Leu Ser Ala Arg Asp His Gln Lys Leu Glu Arg Glu Ala Arg Ile
     50                  55                  60
Cys Arg Leu Leu Lys His Pro Asn Ile Val Arg Leu His Asp Ser Ile
65                  70                  75                  80
Ser Glu Glu Gly Phe His Tyr Leu Val Phe Asp Leu Val Thr Gly Gly
                85                  90                  95
Glu Leu Phe Glu Asp Ile Val Ala Arg Glu Tyr Tyr Ser Glu Ala Asp
            100                 105                 110
Ala Ser His Cys Ile His Gln Ile Leu Glu Ser Val Asn His Ile His
         115                 120                 125
Gln His Asp Ile Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu
     130                 135                 140
Ala Ser Lys Cys Lys Gly Ala Ala Val Lys Leu Ala Asp Phe Gly Leu
145                 150                 155                 160
Ala Ile Glu Val Gln Gly Glu Gln Gln Ala Trp Phe Gly Phe Ala Gly
                165                 170                 175
Thr Pro Gly Tyr Leu Ser Pro Glu Val Leu Arg Lys Asp Pro Tyr Gly
            180                 185                 190
Lys Pro Val Asp Ile Trp Ala Cys Gly Val Ile Leu Tyr Ile Leu Leu
         195                 200                 205
Val Gly Tyr Pro Pro Phe Trp Asp Glu Asp Gln His Lys Leu Tyr Gln
     210                 215                 220
Gln Ile Lys Ala Gly Ala Tyr Asp Phe Pro Ser Pro Glu Trp Asp Thr
225                 230                 235                 240
Val Thr Pro Glu Ala Lys Asn Leu Ile Asn Gln Met Leu Thr Ile Asn
                245                 250                 255
Pro Ala Lys Arg Ile Thr Ala Asp Gln Ala Leu Lys His Pro Trp Val
            260                 265                 270
Cys Gln Arg Ser Thr Val Ala Ser Met Met His Arg Gln Glu Thr Val
         275                 280                 285
Glu Cys Leu Arg Lys Phe Asn Ala Arg Arg Lys Leu Lys Gly Ala Ile
     290                 295                 300
Leu Thr Thr Met Leu Val Ser Arg Asn Phe Ser Ala Ala Lys Ser Leu
305                 310                 315                 320
Leu Asn Lys Lys Ser Asp Gly Gly Val Lys Pro Gln Ser Asn Asn Lys
                325                 330                 335
Asn Ser Leu Val Ser Pro Ala Gln Glu Pro Ala Pro Leu Gln Thr Ala
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22

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          340                    345           350
Met Glu Pro Gln Thr Thr Val Val His Asn Ala Thr Asp Gly Ile Lys
         355               360           365
Gly Ser Thr Glu Ser Cys Asn Thr Thr Thr Glu Asp Glu Asp Leu Lys
     370               375           380
Ala Ala Pro Leu Arg Thr Gly Asn Gly Ser Ser Val Pro Glu Gly Arg
385               390               395               400
Ser Ser Arg Asp Arg Thr Ala Pro Ser Ala Gly Met Gln Pro Gln Pro
             405               410               415
Ser Leu Cys Ser Ser Ala Met Arg Lys Gln Glu Ile Ile Lys Ile Thr
             420               425               430
Glu Gln Leu Ile Glu Ala Ile Asn Asn Gly Asp Phe Glu Ala Tyr Thr
         435               440           445
Lys Ile Cys Asp Pro Gly Leu Thr Ser Phe Glu Pro Glu Ala Leu Gly
     450               455           460
Asn Leu Val Glu Gly Met Asp Phe His Lys Phe Tyr Phe Glu Asn Leu
465               470               475               480
Leu Ser Lys Asn Ser Lys Pro Ile His Thr Thr Ile Leu Asn Pro His
             485               490               495
Val His Val Ile Gly Glu Asp Ala Ala Cys Ile Ala Tyr Ile Arg Leu
             500               505           510
Thr Gln Tyr Ile Asp Gly Gln Gly Arg Pro Arg Thr Ser Gln Ser Glu
         515               520           525
Glu Thr Arg Val Trp His Arg Arg Asp Gly Lys Trp Leu Asn Val His
         530               535           540
Tyr His Cys Ser Gly Ala Pro Ala Ala Pro Leu Gln
545               550               555


<210> 5
<211> 601
<212> DNA
<213> Homo sapiens

<400> 5
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ggaagggggag ttcttgatgt ctgactgtgt cctctcttcc cttgctgtca gttgagccgg 180
gatgcagtga gatgaaaccg gctgtggggg ggtttgagcc tcactttgcc ccatggttga 240
gggagatttc tctttcaggg gatgataccc tcttttttaat ctttccttcc ccgaccttca 300
rctgttcctg ctgagagaag ggcagggtct ctctgctccc ttctgccctg gttctcttgg 360
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tcctgatgtg cagcctgagg tggaggctgt tgccttgccc agggactgga tgagggggtg 480
ggagcgcggc acgccaccca catctgttca gtgtcctgcg gtggccgcgt ccttttgcct 540
catgttggat ggtggtggtc acagcgccgg tgtgtgtgca tgtacgtgag tgtgactaga 600
g                                                                   601

<210> 6
<211> 601
<212> DNA
<213> Homo sapiens

<220>
<221> variation
<222> (301)...(301)
<223> 'T' may be either present or absent (single
      nucleotide insertion/deletion polymorphism)
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23

<400> 6

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tagggtcata ggcacagacc tgcaaaatac cctttgcaaa gttaagaatg tctttgagat 180
tggaacttgg gagagtcctc agtcagagta ggaatgtgca tcctttccca cgtacagagg 240
attgtatgtt tacgtggcag caggatctta tttgaagcta gtgctggcat ttgtgttttt 300
tttttaggaa aatgtcacta agtcaagcag gcccatccct gagagggcca tggagaatct 360
gtggccagcc ctccctggcc ccctgacctg gcagaggaag gaaagggcat tggagtaggc 420
ttctgtcttc aggccagagg gggaggtggt tcaggggcag gcttggtgca ccccttggct 480
gcaagctatc acctccctat ctgcttcctc ttttctgcct cccctggtgc atctggtcac 540
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a                                                                601
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<210> 7
<211> 601
<212> DNA
<213> Homo sapiens

<400> 7

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gcacttagaa tggcacagtc atttctcctc ttgtcttcag tgtcctgtta atttctttac 180
aaattaaaaa aatgtcgata gcagtcttat tcagatacag cttcctccat ccctccttgt 240
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cctgggctct gtgtgtggcc ttcctggaga agggcagacg ccaatgactc catgtctagg 420
cagaggcctg ggtgcctgca cttcttgccc tgttcttggc cttgctgtgc tgggcggggg 480
cagggtggtg tggggcatgg ggtggtgttg ggcatggggt ggggttctgg ctgaggcagg 540
gctcagtgcc aggcccaggc agagctgagt ggctccactt ctctgagatg gttgtcagca 600
t                                                                601
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<210> 8
<211> 601
<212> DNA
<213> Homo sapiens

<400> 8

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gctctggcat gatccagagg tgcagaagac atggtttctg tcctgaggga gtggagagtt 120
ctgggctgat aatccaacca tagagccccg ggagctttca gcctctgtca ccttgtccct 180
agaccaccat gaccagcctt gccgtggggc tcctccaact tgaggaccgt tccccggcca 240
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tgatgtccct acaacctggt tttgatcatc ctgcctgcag cttatctggc ttatgtggca 420
gctctggctg cttctggaga gtggggagt gcagcttcct cacgaatttc tcaaccttga 480
gaggccaatg tttgctgatc aacttcagat gcttcagcct cgggaagaat tctcaagtgg 540
ggagatgaat ccagtgcca gcaggggagg acgaggctct gggacggagg aggcagtgat 600
g                                                                601
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<210> 9
<211> 601
<212> DNA
<213> Homo sapiens

<400> 9

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24

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aaaaaaaact ttaaaaatta gctggttgtg gtaacgtgcc ttagctactt gggaggctga 180
gatgagagga tcacctgagc ctagagaggt ggaggttgca gtaagccatt attgtgctac 240
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dtttaaggag aggcttaact ataatctata gagaagaatc tagtccagag gaaagagttg 360
aagatccttg ctaattgagg aagcaaaggt ttggacagca gaaaaagaga gggggctcct 420
gagccaaggg caggggtcc atcccgggga tgaccatgat ccccctgaga cttctattag 480
tgtggaggca ggtgaagatc ggcttgtgag tggaagtctg agctgaaagg ggttcttgct 540
gatgacctct cattttgctt ttggagaaat ttacaccgag gaggaggtaa aatgagagac 600
t   601

<210> 10
<211> 601
<212> DNA
<213> Homo sapiens

<400> 10
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gtcctgggcc acaccttgac caggcgagt gaggatcctg ttttgagggg ctgctgctgc 180
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aacttcccaa ggagtagcct gcccaacttg ctatgtacct tgtttctctg gattcttatt 300
waactctctg aagactctca gcactttaca gattttagcc attctaggat cttggaggat 360
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ccattcattt gcctgctggg acgatctctt acttcatttt gtccaagtgg agatgactaa 480
tagaaattat ccagatgtt taaacctttt gtggcgactt gtgcttaaaa tagtccctga 540
gatactagct ataacagtga agaaataaag accagcagga gagagggaaa ggaacttgct 600
t   601

<210> 11
<211> 601
<212> DNA
<213> Homo sapiens

<400> 11
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tgctgctgag tcctgctcct gagattcagg gggctggact cacatttgtg aattgtttcc 180
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taatagaaat tattccagat gtttaaacct tttgtggcga cttgtgctta aaatagtccc 480
tgagatacta gctataacag tgaagaaata aagaccagca ggagagaggg aaaggaactt 540
gcttaaattt gcataaagaa ttgggagagg tggaccaat aatttgtaaa tcatacttga 600
c   601

<210> 12
<211> 601
<212> DNA
<213> Homo sapiens

<400> 12
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ttaatgtcga gactgaagac agagagggct ctgcccagct tgccatctcc cccggtcctc 180
cctccctcta accccttgcc tcactgtttt ggttcaagac ccccccttct ccttcccata 240

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ataagactcc ctcccttgct tcccctctgc accaccatgg aaaggggggtt gtgtgggagc 300
mtaagccacc actcagtggg agccacttct gaatacccgt cctgctgggc tcgcctgcgc 360
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tgtcatgggt acccacgacg ggcatactgt ggtgtggctc cacctctcgc agatgggaac 600
a                                                                601


<210> 13
<211> 601
<212> DNA
<213> Homo sapiens

<400> 13
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ggcagctagg acccagtgaa cctggtgagg acctgctcag tgaaggcttc aacccccctgg 120
caaaaccctc ctgtaggtgg tcctggtttc tgtgtctgtg tctgtctgtc ctctggtctc 180
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cgcagaggag atcctgaggt gccaccctga gggctctgac gccactcaag atccccttct 480
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tcagacacag cactctcttg tggatctggc tgccggactt caggttgggg agagggtaca 600
a                                                                601


<210> 14
<211> 601
<212> DNA
<213> Homo sapiens

<400> 14
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ctgcagctct tccaggaacc ctgaggatga gggctgggca gacacatcat taggtaaagg 120
ctttaaatga ggacgtgcgt ggggaaccta gccctgcaat gtgttgtgtg tctgaccctg 180
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mgttgtgatg ggagggggtta atattttat tgaaagagtt tctgtgacaa ataatccctc 360
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gccgaggcgg gtggatcacg aggtcaggag atcgagacca tcctggctaa cacggtgaaa 480
ccccatctct actgaaaata caaaaaatta gccgggtgtg gtggcaggcg cctgtagtcc 540
cagctacttg ggaggttgag gcaggagaat ggcgtgaacc cgggaggcgg agcttgcagt 600
g                                                                601


<210> 15
<211> 601
<212> DNA
<213> Homo sapiens

<400> 15
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agtttctgtg acaaataatc cctcttaaaa cccagtagaa gctgggcgtg gtggctcacg 180
cctgtaatcc cagcactttg ggaggccgag gcgggtggat cacgaggtca ggagatcgag 240
accatcctgg ctaacacggt gaaaccccat ctctactgaa aatacaaaaa attagccggg 300
ygtggtggca ggcgcctgta gtcccagcta cttgggaggt tgaggcagga gaatggcgtg 360
aacccgggag gcggagcttg cagtgagctg agattgtgcc actgcactcc atcctgggtg 420
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26

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acagagcaag actccgtctc aaaaaaaaaa aaaaaaaaaa aaaaaaaccc agtagatagg 480
ctaggtgtgg tggctcacat ctgtaatccc agcactttgg gatgctgagg tgggctgatc 540
acttgaggcc aggagttcga gaccagcctg gccaacatgg tgaaacccccc tctctactaa 600
a                                                                 601


<210> 16
<211> 601
<212> DNA
<213> Homo sapiens


<400> 16
ggaaacgtag tgagacccca tctcttaaaa aaaaaaaaaa aaattagctg agtgtggtgg 60
aacgtgcctg tagtcccagc tacttgggag gctgaggtgg gaggattgct tgagcccagg 120
aggctgaggt tacagccagg atcacaccac tgcgctccag cctgggtgac agagtgaggc 180
tctgtttaaa aaaaaaaaaa aaagagagag aagaaaaaaa agattggaga caatttgaaa 240
agccagtaag gagccagaca cagtggtgcg tacctatagt cccagctact caggaggctg 300
ycgcaggaca gaattgcttg agcccaggaa ttcgaggcca gctgggcaac atagtgagac 360
ccccaactct taaaaatgtt tttaaattta aaaataaaaa gatttttaa aagccagtaa 420
atgactaaat aattatggga aatctactta ataaactatt caaaagttat taattttcat 480
gaccgtaggg atattttaag tgaaaaataa agtgcagaaa tgtttttatat taagtgaagg 540
aagtggtata taaaggagta cagacaagcc aggcacggtg gctcacgcct gtaatcccag 600
c                                                                 601


<210> 17
<211> 601
<212> DNA
<213> Homo sapiens


<400> 17
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tgcaaagcca gaaacaggaa agagggctgg ggtccccacc tctggatggt gctgaggtct 120
ccaggctcct ggagtgcctc atgctggcta agttctctct gggctcctcc aggggttctg 180
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cttctgccca tgttcctgcc tcacacattc cccgtgatga acgctgtggg cggggcccgg 480
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a                                                                 601


<210> 18
<211> 601
<212> DNA
<213> Homo sapiens


<400> 18
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ttccccggga tcaggggtcc ttggacaggc tgttgtaagg ctcgtctgga agccacagcc 180
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cactgggaat ggcagctcgg tgcctgaagg acggagctcc cgggacagaa cagcccctc 480
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27

t   601

<210> 19
<211> 601
<212> DNA
<213> Homo sapiens

<400> 19
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tgagaccagg caggggcccc tgagtctggg gcccaaagaa atatgagaag tgtgggtgga 180
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cagcgctgag ccaggaagaa gggcagagtc ggaagtcagg tctgtggggg tgggagtggg 300
rtgatgggga aatcgtgaca gcgaggaact gtgttgggga tgtagtgctt cctgagtctc 360
agcataacag tattaagagc atggggtcag aggcaagata gatctgagtt taaatcccag 420
ctacactgcc ttcaagagtg tgaagtttaa cctcccagag ctgcaggttc cttatctgta 480
atgtggaaat aaaatggcac gcacctcaga gccttgttag ataaaagaca aggcagtagg 540
aagtcttgat acggtgcctc gatgggttat cagtagctca tcctcatatt tctagttacg 600
t   601

<210> 20
<211> 601
<212> DNA
<213> Homo sapiens

<400> 20
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tgtcttgcag cctttttgctc ctgtgaggaa agggttgtgg cctggccccg cccagggctc 300
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gctttggatg ggttggggag gaggcctctg gagggcacca cctctgcctg cctgtcagtc 480
tgagccctgt ctggttttcc tgaggaacac gtcctggcaa tgagagctgg tgtgaaatgt 540
gcagctttcc caagcctcga gaggtaaatg gagcagcctc tctggtacag ctgtcccaa 600
g   601